



U.S. Fish and Wildlife Service

Crab Orchard

National Wildlife Refuge

Update

Draft Environmental Impact Statement and Comprehensive Conservation Plan

October 2005

Message from the Refuge Manager

This is an important time for Crab Orchard National Wildlife Refuge. We are about to decide how we will manage the Refuge for the next 15 years. You have the opportunity to play a significant role in forming our decision. I invite you to become familiar with our Draft Comprehensive Conservation Plan and tell us what you think about our proposal. We are interested in knowing what you like, what you don't like, and why.

We have learned many things during the planning process. Chief among these is how much people care about Crab Orchard National Wildlife Refuge. We have heard from many people about long, sometimes life-long, experience with the Refuge. The Refuge plays an important part in the lives of many people.

Another thing that we have learned is that for any proposal, someone will be affected negatively. We are not going to be able to satisfy everyone's interest. So, what are we to do? In formulating our proposal, we have gone back to the purposes of the Refuge and the mission of the National Wildlife Refuge System for our foundation. Based on this foundation and recognizing our responsibilities as public land managers to present and future generations, we have thoughtfully considered the pros and cons of several alternatives and proposed what we think is a reasonable approach for the next 15 years.

I want to make sure that you realize that no decision has been made about what course management will follow. Our draft document is just a proposal. We want to hear what you think about it



and the other alternatives that we considered. Based upon what we learn from your comments, we will reexamine our proposal and possibly make modifications to it or develop a new proposal. After again thoughtfully weighing the pros and cons, we will make a recommendation to our Regional Director, who will decide whether or not to adopt it as the management direction for the Refuge.

In the next 3 months I will be meeting with many individuals and groups to introduce our proposal and hear their comments. I hope to hear from you, too. In this update you can learn the major points of our proposed management. This update also tells you how to obtain more details about our plan and the planning process. My staff and I are holding a meeting and open house where you can ask questions and offer comments. The details for the gatherings are also in this update.

Again, I hope to hear and learn from you.

**Dan Frisk
Refuge Manager**

Where to Get the Full Draft EIS/CCP

You can see an executive summary and the complete Draft Environmental Impact Statement in a number of places. If you have access to the Internet, you can find a link to the documents at the following address:

<http://www.fws.gov/midwest/planning/craborchard>.

Copies are available at local libraries:

- Carbondale Public Library in Carbondale, Illinois
- Carterville Public Library in Carterville, Illinois
- Chester Public Library in Chester, Illinois
- Du Quoin Public Library in Du Quoin, Illinois
- Herrin City Library in Herrin, Illinois

- Johnston City Public Library in Johnston City, Illinois
- Jonesboro Public Library in Jonesboro, Illinois
- Marion Carnegie Library in Marion, Illinois
- Mitchell Carnegie Library in Harrisburg, Illinois
- Sallie Logan Public Library in Murphysboro, Illinois
- Stinson Memorial Library in Anna, Illinois
- Vienna Public Library in Vienna, Illinois
- West Frankfort Public Library in West Frankfort, Illinois

The Draft EIS/CCP is also available in print or on compact disk (CD) in limited supply. Please call the Refuge at 618-997-3344 to request a copy.

Meeting and Open House

We invite your review of the Draft EIS/CCP and, most importantly, your comment and advice to ensure a Final Plan that is thoughtful and practical. We will host a Public Information Meeting on Thursday, November 3, from 6-9 p.m. at the O'Neil Auditorium at John A. Logan College, Route 13, Carterville, Illinois. We will also host an Open

House on Saturday, November 5, from 8 a.m. to 4 p.m. at the Crab Orchard NWR Visitors Center. The Visitors Center is located at 8588 Route 148, Marion, Illinois. At both events you will be able to ask questions, seek understanding, and voice concerns and suggestions.

Your Comments are Welcome!

You are invited to submit comments in writing or electronically through our web site (<http://www.fws.gov/midwest/planning/craborchard>).

Correspondence should be mailed to:

U.S. Fish & Wildlife Service
Crab Orchard National Wildlife Refuge
Attention: Draft EIS Comment
8588 Route 148
Marion, IL 62959

Deadline for Comments

In order for us to consider your comments as we prepare the Final Environmental Impact Statement

and Comprehensive Conservation Plan, we need to hear from you by January 17, 2006.

Introduction

Located in southern Illinois, Crab Orchard National Wildlife Refuge (NWR) was established in 1947 for wildlife, agriculture, recreation, and industry. The Refuge consists of 43,888 acres. Figure 1 shows the location of the Refuge.

The U.S. Fish and Wildlife Service (Service) is required to prepare and implement a Comprehensive Conservation Plan (CCP) for each unit in the National Wildlife Refuge System. We are preparing an Environmental Impact Statement (EIS) as part of the comprehensive conservation planning process. Preparation of the EIS

establishes scientific data on which we can base our selection of a management direction and it provides an opportunity for residents, communities, state agencies and governments, and non-government organizations to express their ideas on Refuge management. The EIS will establish a management direction for the Refuge for the next 15 years, and it will assure that this direction best achieves the Refuge's purposes, vision, and goals; contributes to the mission of the National Wildlife Refuge System; is consistent with principles of sound fish and wildlife management; and addresses relevant

Figure 1: Location of Crab Orchard NWR



mandates and major issues developed during scoping.

We, the U.S. Fish and Wildlife Service, have thoughtfully considered how we should manage Crab Orchard NWR. We have drafted a recommended management plan for the next 15 years.

Main Points of The Proposed Plan

- Provide for wintering Canada Geese at approximately current levels.
- Continue current management of resident fish and wildlife.
- Recommend an additional 120 acres for Wilderness designation.
- Propose the acquisition of lands that are surrounded by the Refuge and some land along the boundary. We would buy only from willing sellers.
- Reduce forest and grassland fragmentation to benefit certain birds.
- Improve the quality of recreation through consolidation and improvement of facilities.
- Eliminate area designations.
- Maintain the existing group camps.
- Limit camping stays to 14 days.
- Simplify the recreational fee structure.

- Expand the no-wake zones on Crab Orchard Lake.
- Officially designate a trail through the Wilderness for hiking and equestrian use.
- Emphasize conservation practices in the agricultural program.
- Continue to provide for defense munitions manufacture.

In the rest of this summary we describe the steps that led us to our recommended approach. The details of our process and results are in the body of the Draft Environmental Impact Statement and Comprehensive Conservation Plan.

Steps in Formulating Our Plan

Our planning team consists of Refuge staff, regional office planning staff, representatives from other programs within the Fish and Wildlife Service, and representatives from the Illinois Department of Natural Resources. At times we asked other experts to help us address a particular topic.

In late 2000 we asked citizens for their ideas on what the plan should include and the issues that should be addressed. We gave citizens the opportunity to comment at open houses and through written comments. In three meetings early in 2001, we asked a diverse group of stakeholders to identify and prioritize issues facing the Refuge.

In April 2001, we considered the issues that had been raised and what we thought could reasonably be accomplished in 15 years, and we developed four alternative management concepts. We described the management concepts in a newsletter that we sent to everyone on the planning mailing list in September 2001. We invited citizens and stakeholders to comment on the concepts.

Using the comments that we received, land cover data analysis, and other data, we modified and refined the concepts – which became the five alternatives described in Chapter 2 of the Draft Environmental Impact Statement. After we had the alternatives well defined, we estimated the consequences of implementing each alternative. That analysis is described in Chapter 4 of the Draft Environmental Impact Statement. After comparing the consequences of each alternative, we chose one preferred alternative to develop into a Draft Comprehensive Conservation Plan, which is presented in Appendix A of the Draft Environmental Impact Statement. We prepared the

Draft Environmental Impact Statement and Comprehensive Conservation Plan during 2002-05.

The draft document is now available for review and comment by the public. We will consider the comments we receive as we prepare the Final Environmental Impact Statement and Comprehensive Conservation Plan for Crab Orchard National Wildlife Refuge.

Issues Addressed in Our Plan

Citizens brought up many of the issues and we identified some others. We organized the issues into major topics:

- Wildlife conservation
- Recreation
- Recreational boating
- Refuge purposes
- Role in the local economy
- Communication between refuge and community
- Wilderness

The following paragraphs briefly describe the issues and our consideration of them.

Wildlife Conservation

From comments submitted by the public and the State of Illinois, we knew that we had to address how we intended to provide for



wintering Canada geese. In the past we considered reducing the amount of croplands that we provide for geese. Local citizens, particularly waterfowl hunters, and the Illinois Department of Natural Resources were critical of a reduction of croplands. Early in the planning process we decided that we would continue to provide close to the current amount of cropland for wintering geese. We think that more food will be available for geese than they will use in most years. In our proposed plan we provide for 'worst case scenario' conditions of poor crop years and large migrations of geese. In the plan we propose to provide approximately 1,760 acres of corn, 880 acres of winter wheat, and 1,760

acres of clover each year for the geese on the average. We also plan to actively manage 500 acres of moist-soil habitat for geese, ducks, shorebirds, and other waterbirds.

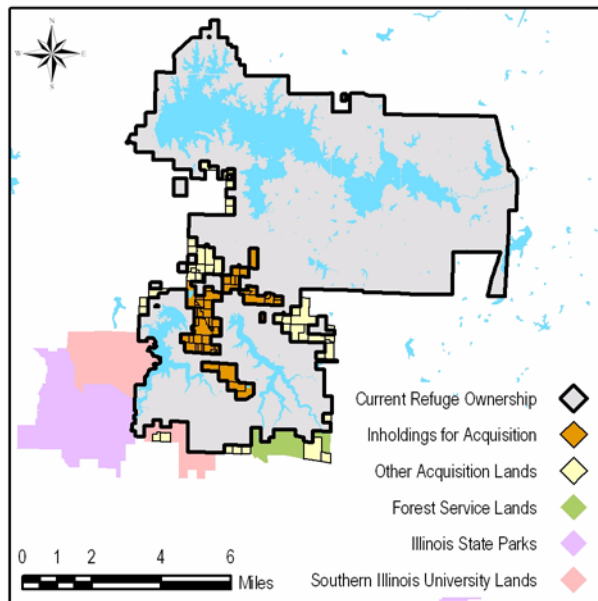
As the primary federal agency providing for migratory birds, we want to identify and manage for those birds that are particularly important. Within our eight-state region we have identified the species that are the priority species for us. There are also collaborative efforts among several groups to provide a coordinated approach toward bird conservation across the North and South American continents. We looked at how Crab Orchard NWR might contribute toward these efforts and concluded that the Refuge would contribute by providing unfragmented forest and grassland to benefit species that need these kinds of habitat. In our planning process we looked at three alternative ways to provide unfragmented habitats. In one of our alternatives we looked at maximizing unfragmented forest habitat. In another alternative we looked at maximizing unfragmented grassland habitat. In the third alternative we looked at making small changes in the current habitat cover to gain larger, unfragmented blocks of both forest and grassland habitats. We chose this third alternative as our preferred course of action.

In comparing our different approaches to habitat, we were surprised by how little difference there was in land cover among alternatives. The difference in core acres (the acres that are particularly beneficial to area-sensitive birds) of mixed hardwood upland forest between an alternative where we emphasized grasslands and where we emphasized forests was only 476 acres, which is a very small percentage of the Refuge. We expect that natural succession will greatly contribute to changes in land cover over time. Our role may be only to speed up that succession in some cases.

The management activities that we propose in our plan to benefit forest and grassland birds include, among other things: reforestation of selected areas, accelerated conversion of pine plantations to native hardwoods, removal of woody fencerows and roadside vegetation, control of invasive species, and conversion of fescue pastures to native, warm-season grasses and more desirable cool-season grasses.

The Bald Eagle is the only federally designated threatened species known to occur on the Refuge. The Indiana bat, which is federally classified as endangered, is known to occur in proximity to the

Figure 2: Crab Orchard NWR Proposed Boundary Modification and Other Public Lands



Refuge. We constructed a goal, objective, and strategies for the protection of these species in our plan. We will follow established management guidelines for the Bald Eagle, and we will coordinate with the Ecological Services staff of the Fish and Wildlife Service to avoid possible impacts to Indiana bats from our management activities.

Our planning requirements and past land transactions caused us to look at the desirability and need for acquiring interests in lands adjacent to the Refuge either by fee title or conservation easements. In the past we have had neighbors who wanted to sell their land to the Refuge and a purchase had biological benefits to the Refuge. We analyzed each purchase individually. But, this tract-by-tract analysis is inefficient and does not provide for an overall, cumulative analysis of possible land transactions. We propose in our plan to acquire interests, from willing sellers only, in approximately 4,242 acres of land either completely surrounded by or adjacent to the Refuge as part of a boundary modification. The boundary modification would allow the acquisition of inholdings from willing sellers and move segments of the boundary to coincide with roads that would better define the limits of the Refuge (see Figure 2). The boundary modification would increase the efficiency of

management, reduce incompatible land uses, and enhance public use opportunities.

Recreation

The recreation issue was made up of several parts and elicited the most comments from the public. Citizens were concerned about the loss of recreational opportunities and lack of support for recreation by the Refuge. At Crab Orchard NWR, we have had a difficult time meeting people's expectations and providing for certain kinds of recreation that are not traditionally a part of Service activities. Also, we are obligated by a 1997 law to facilitate wildlife-dependent recreation on national wildlife refuges, if possible. We examined two alternatives to doing a better job of providing recreation. One alternative calls for what we consider a major change at Crab Orchard NWR – exchanging some Refuge lands with developed recreation facilities to Southern Illinois University for undeveloped land that the University owns adjacent to the Refuge. In the other alternative we considered how we could do a better job of providing recreation without the land exchange. In this second alternative we thought that it would be necessary to consolidate the facilities that we have and improve them. We do not think it is likely that we could support high quality facilities at all of the sites that currently exist.

During our initial analysis, we considered the alternative with the land exchange as our “working” preferred alternative. We thought that the University would be able to offer better swimming, camping, boating, and picnicking facilities than we have been able to. We also thought that the University would be able to develop a hotel and resort complex that is beyond the capabilities of the Refuge. By having the University provide the majority of the non-wildlife oriented recreation, we thought that we would be able to provide better quality wildlife-dependent recreation – hunting, fishing, wildlife observation and photography, environmental education, and interpretation.

We analyzed the alternative with the land exchange and discovered a serious obstacle to implementing the exchange. If we exchange land, federal regulations require that the land involved in the exchange be of approximately the same value. Our preliminary appraisal estimates indicated that the federal property in the proposed exchange would exceed the value of the Southern Illinois University property by as much as \$20 million. It

appeared to us that the proposed exchange could be accomplished only with Congressional action. Rather than pursue a course with an uncertain timetable and outcome, we chose the alternative to consolidate and improve our recreational facilities, which we can implement within our current authority.

We plan to make visitors feel more welcome by improving our services and facilities. We propose to work with the administrators of the group camps on the Refuge to emphasize the mission of the National Wildlife Refuge System in their programs. As a result of our efforts to consolidate and improve facilities, we expect to close the campground at Devils Kitchen Lake because the current site is too steep to maintain.

We also propose changing the classification of areas on the Refuge. When the Refuge was established we published a classification of lands indicating where wildlife would be emphasized and where recreation would take place. We propose to do away with the past classification of areas and treat the entire Refuge as one unit, which will allow more balanced management responsibilities across all portions of the Refuge.

During the planning process we examined our current way of doing business and saw a need for revision and additional explicitness for some topics. We propose to restrict length of camping stays to 14 days. This is a change from the unlimited length stays that are now permitted. We think limiting the length of stays is more equitable and will lead to higher quality camping experiences. We also propose to implement a new recreational fee system that will be more convenient for visitors. We propose to charge only one fee rather than multiple fees for cars and boats. We have not explicitly addressed rock climbing in past regulations, and some visitors who engage in this activity have been unsure of its legality. Much greater opportunities for rock climbing are available in nearby Giant City State Park and elsewhere. For public safety reasons, we propose to prohibit rock climbing on the Refuge.

The Haven and the Crab Orchard Boat & Yacht Club are available only to a limited segment of the



general population. The facilities and activities at these clubs amount to private use of public land. Our long-term goal is to make these areas available to a broader portion of the public. Over the 15-year life of the CCP, the Refuge staff will work collaboratively with the Egyptian Past Commanders Club to evaluate the effectiveness of this facility in achieving the purpose of Haven's establishment, and to make recommendations for its future use.

We proposed to extend the lease of the Crab Orchard Boat & Yacht Club for 2 years after the approval of the Refuge CCP. After the lease expires, we would convert the operation of the club facilities to a concession contract. This would end what amounts to private use of public land and make the facilities more available to the general public.

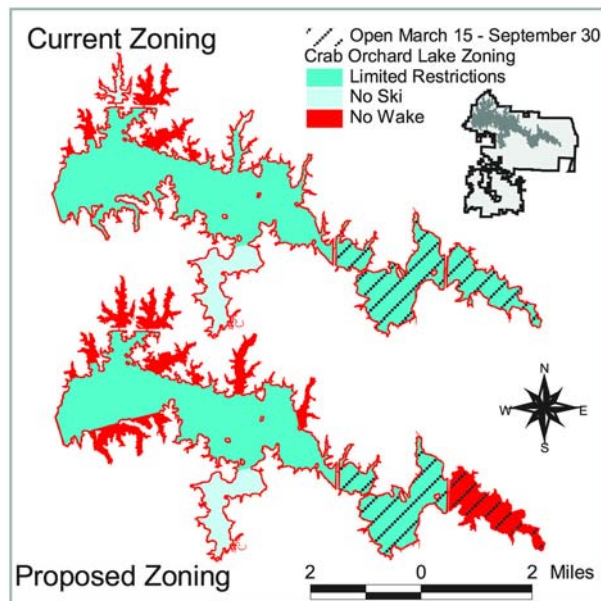
Horseback riding has been occurring on the Refuge for a number of years, but our regulations do not currently address this use. Horseback riders want to ride through the Refuge as part of the River-to-River Trail, but this trail has not been officially designated or recognized on the Refuge. We have been concerned about various impacts caused by horses, especially trail erosion. In the plan we propose to officially designate a horse trail through the Crab Orchard Wilderness and take measures to actively control erosion. We would prohibit horseback riding off-road elsewhere on the Refuge.

Recreational Boating

We learned of strong support for the continuation and encouragement of boating at the Refuge during our initial meetings with the public. People also recognized actual and potential conflicts among boaters and between boaters and other recreational users of the lakes. Suggestions included installing speed limits, removing "no wake" signs, and restricting motorized vessels. Many people expressed opposition to personal watercraft or expressed the need for more restrictive regulations for their use. In order to reduce conflicts among recreational boaters, but still provide opportunities for all, we propose to expand no-wake zones in some bays and the far east end of Crab Orchard Lake (see Figure 3).

When we distributed our initial Project Update describing draft conceptual alternatives, we proposed to prohibit gas motors on Devils Kitchen Lake. Our intent was to further reduce the sounds of motors on the lake. We received a number of comments stating that this would unnecessarily

**Figure 3: Recreational Use Zoning,
Crab Orchard Lake**



reduce anglers' access to the lake. In order to accommodate this view, we propose to only prohibit gas motors on the lake south of the southernmost boat ramp. We think this compromise allows anglers with gas motors access to most of the lake and still reduces the sound of motors on a portion of the lake.

Refuge Purposes

Some citizens perceived a lack of support for the four original purposes of the Refuge. Their concern was that some purposes might be seen as incompatible with the mission of the National Wildlife Refuge System due to recent legislation and changing policies. Conflicts between the Refuge purposes and the mission of the National Wildlife Refuge System are dealt with in the National Wildlife Refuge System Improvement Act of 1997. In the case of conflict between the purposes of a refuge and the mission of the System, the conflict is to be resolved in a manner that protects the purposes of the refuge, and, to the extent practicable, that also achieves the mission of the System. We think that, overall, we are meeting the intent of the law.

We think that the activities associated with the original purposes of the Refuge are compatible. The compatibility determinations found in Appendix J of

the Draft Environmental Impact Statement formalize our thoughts regarding these activities and their compatibility. We determined that the following existing activities, among others, are compatible: camping; swimming; picnicking; horseback riding; boating; and waterskiing.

We considered how we should manage for the agricultural and industrial purposes of the Refuge for the next 15 years. The agricultural program is closely tied to providing food for wintering geese and other wildlife. As we thought about how the agricultural program might be improved, we investigated possible ways to make it more beneficial to wildlife and ways to use better management practices. We learned that in fitting the agricultural program with our wildlife conservation goals, our alternatives varied by small percentages in how many acres were devoted to row crops, pasture, and hayfields. Currently about 4,500 acres are farmed as row crops. We looked at alternatives that ranged from 4,300 to 4,800 acres of row crops. Our proposed plan would maintain about 4,400 acres in row crops. Currently about 1,000 acres of pasture are grazed. All of the alternatives we looked at would maintain those acres. Currently about 700 acres are hayed. We looked at alternatives that ranged from 500 to 700 acres of hayfields. Our proposed plan would maintain about 600 acres in hay fields.

We do not plan to make large changes in the number of acres that are a part of the agricultural program. Rather, we propose to place greater emphasis on conservation practices that would provide more benefits to wildlife and improve water quality. We plan to address erosion with buffer strips and discontinue farming in wetlands. We plan to permit cooperator farmers to harvest corn remaining in the field in the spring. To better protect nesting birds, we plan to limit mowing of clover and hayfields until after August 1. We propose to change pastures from fescue grass to other cool-season and native warm-season grasses with higher wildlife value. We will divide existing pastures into three or four paddocks and cattle will be rotated among the paddocks during the season. We will ask for technical oversight from the Natural Resource Conservation Service and the University of Illinois Extension for our agricultural program.

Industry on the Refuge was identified by the public as an issue only in the context of its contribution to the regional economy. We were concerned about how to manage industry because of

past contamination and the aging infrastructure of buildings, roads, water, and sewer lines. Most of the manufacturing and storage buildings are reaching the limits of their expected lifetime. The buildings require a lot of maintenance and refurbishing to meet today's standards. Recently, several industrial parks have been developed nearby that offer amenities not available on the Refuge.

Of the industries on the Refuge, the munitions industry is in a unique position of requiring widely spaced facilities for safety reasons. By providing a safe area for munitions manufacture, the Refuge is able to contribute to and support the national defense. We plan to continue to provide an area for defense munitions manufacture. We will encourage new industrial expansion in the neighboring industrial parks with newer facilities. We plan to maintain the transportation and utility infrastructure sufficient for current industrial tenants. We will expect industrial tenants to bring their facilities up to prescribed safety, health, environmental and maintenance standards under all new leases. Our intent is to consolidate the areas occupied by industry. We considered discontinuing the use of facilities as they were vacated, which would hasten the move of non-munitions industry off the Refuge. However, we did not think this would be an efficient use of resources. So, if tenants do not renew leases, we plan to seek suitable tenants for facilities that meet standards of occupancy.

Refuge's Role in the Local Economy

In the early stages of planning we learned that several citizens perceive recreation, agriculture, and industry on the Refuge as important to the economy of Southern Illinois. We asked a technical expert to help us determine the role of the Refuge in the local economy and the possible effects the alternatives that we were considering might have on the local economy. The general finding is that the Refuge contributes millions of dollars to the economy of Jackson and Williamson Counties, but the contribution is a small percentage of the total economy. The impacts of the Refuge operating budget and the recreation that occurs on the Refuge account for less than 1 percent of the total economy and employment in the two-county study area. The Refuge crop value is more than 10 percent of the total Williamson County crop value. Grazing value on the Refuge is about 8 percent of the grazing value for Williamson County. For commercial and industrial space, the Refuge accounts for just over one percent of industrial/commercial site acreage in

the Greater Marion area. Our analysis of each alternative showed that none would result in significant changes to the local economy.

Communication With the Community

As we began planning it was apparent to us that the Refuge administration could do a better job of communicating with the community. Our observation was confirmed by comments made by citizens during open houses and focus groups. Because the topic is important to us and the successful accomplishment of the Refuge mission, we established a goal that addressed the understanding of the Refuge by the community and staff receptiveness to concerns of the public. We plan to improve our communication with the public by regularly reviewing comments from the public, providing reports on the "State of the Refuge," and supporting selected community events.

Wilderness

Our refuge planning policy requires us to examine existing Wilderness and the potential for designating additional lands as Wilderness.



We recommend that the Wilderness Management Plan that was approved in 1985 be reviewed for possible revision. The plan will need to be revised if horseback use is to be officially recognized as an appropriate use in the Wilderness. We reviewed the entire Refuge for possible additions to the Wilderness. We identified two tracts that total 120 acres and are surrounded by Wilderness and meet the criteria for Wilderness Study Areas. We propose that these tracts be recommended for Wilderness designation by the U.S. Congress.

Conclusion

We look forward to receiving your comments on the Refuge's Draft EIS/CCP. Please see page 2 for information on how you can participate in this important planning process.